FY 2015 Superior Accomplishment Award: Red River Supply Warehouse Fire - $1500
Paul Peronard

OSC Paul Peronard responded to an intense chemical fire at an oil and gas industry warehouse producing a large smoke plume in Williston, ND. After reviewing the MSDS sheets for a long list of oil industry chemicals stored in the warehouse, Paul had monitoring stations set up to ensure that the nearby community would be safe from potential volatiles as well as particulate matter, which would be the greatest concern for residents approximately one-half mile away. The blaze was so large and so hot, involving significant quantities of chemicals, the city fire department decided to abandon attempts to extinguish the fire which had required large amounts of water and reduced their efforts using only enough water for suppression. The city issued an advisory to the citizens of Williston to evacuate or shelter in place.

While the local fire department controlled and prevented the fire from spreading to other buildings, Paul recognized that the water used to control the fire could be potentially contaminated and impact the nearby Missouri River. To the extent practicable, Paul had storm drains covered, site run-off water was diverted from entering the city stormwater system, culverts to the main drainage canal were plugged, and water entering the canal from the north was diverted until the water could be tested. Several locations along the canal were boomed to contain debris, oil, and soot from the fire. A clay berm was also being constructed around the perimeter of the site to minimize and contain runoff from rain events.

Unfortunately, a heavy rain event on the second evening caused the stored water in the storm canal to over-top, resulting in a fish kill in the canal. Paul coordinated with US Fish and Wildlife personnel who determined that the chemicals in the water had depleted the dissolved oxygen resulting in the fish kills. Paul immediately ordered the installation of aerators and pumps to raise the dissolved oxygen levels which also stripped the contaminants from the water. Within one day of these efforts, the oxygen levels had increased three-fold.

The fire was mostly out by the third day, however, a fire suppression contractor was hired to address management of ongoing flare ups and provide dust suppression support. Though the site was not released for clean-up operations until a month later, Paul directed a decontamination pad be constructed so that crews would be ready to stage materials once the city Fire Marshall gave the clearance. At this same time, mitigation efforts in the canal were deemed effective enough to return the trapped water in the canal to the Little Muddy River and all water control systems shut off and removed.

During the second month of the response, the burned and damaged buildings and debris were removed and/or staged for recycling or disposal and the top 18-inches of soil removed. Due to Paul's foresightedness, more than 250,000 gallons of contaminated water was contained on-site in frac tanks, preventing impacts to the Little Muddy and Missouri Rivers and nearby residents. Some of the water was able to be used for gross decontamination of materials and dust suppression, some was sent off-site for treatment, and some was disposed of through deep well injection.

High Value/Broad Application: Superior contribution to the Agency regionally and other Departments and Agencies with a broad impact on the program.